

IN THE CLAIMS

Please cancel claim 66, and amend claims 1, 10, 34, 45, 49, 51, 52, 55, 58, 62 and 65, as follows:

1. (Currently Amended) A method for inspection of a roll of web material through a web inspection system comprising:

inspecting a roll of web material to determine the number, type and location of one or more detectable defects along the web material;

outputting an electronic data "object" representation of the roll map, including real-time visual images of the one or more detectable defects;

storing the electronic data representation to enable subsequent retrieval thereof;

performing a Self-Diagnostic Test on said inspection system to determine the performance of the web inspection by the inspection system, including:

measuring or retrieving certification data applied during said inspection; and

comparing the applied certification data to standardized certification data to determine whether the applied certification data was within the predetermined range of tolerances;

performing a System Integrity Test measuring performance and calibration of predetermined components the web inspection system; and

certifying the accuracy of the roll map object electronic data representation of the inspected web material to be within a predetermined range of tolerances set for that web material.

Claims 2-4. (Canceled).

5. (Previously Presented) The method according to claim 1 wherein,
said performing a self-diagnostic test further includes performing a Product Calibration Test measuring or reviewing an application of product set-up parameters for the particular web material inspected.
6. (Previously Presented) The method according to claim 1 wherein,
said certification data includes System Integrity Test Data relating to the calibration and operation of predetermined components of the web inspection system, and Product Calibration Test Data reviewing product set-up parameters applied for the particular web material inspected.
7. (Previously Presented) The method according to claim 1 wherein,
said performing a self-diagnostic test includes measuring or retrieving certification data applied during said inspection.
8. (Original) The method according to claim 1 wherein,
said certifying includes generating a digital Product Inspection Certificate containing and certifying the object data representation of the roll map.
9. (Original) The method according to claim 8, wherein
said certifying further includes generating a digital signature with the Product Inspection Certificate.

10. (Currently Amended) A method for certifying an inspection of a roll of web material through a web inspection system comprising:

calibrating the web inspection system to conform to predetermined certification data for the roll of web material to be inspected;

inspecting the roll of a web material for one or more defects, if any, through the web inspection system;

detecting at least one of the one or more defects through the web inspection system, including real-time visual images of the one or more detectable defects;

determining the location of the at least one detected defect, relative the roll of web material, through fiduciary indicators placed along the web material;

recording the detection of the at least one or more detected defects, their real-time visual images thereof, and its their location relative the roll of web material on an electronic recording medium to create an electronic roll map;

measuring actual certification data of the web inspection system;

comparing the actual certification data to the predetermined certification data for the roll of web material;

certifying the accuracy of the roll map of the inspected web material when the actual certification data is within a predetermined tolerance of the predetermined certification data; and

re-inspecting the roll of web material through the same web inspection system or an independent second web inspection system to verify the certification by detecting the at least one of the one or more defects, through the web inspection system.

11. (Original) The method according to claim 10 wherein,
said certification data includes System Integrity Test Data of predetermined components of the web inspection system, and
said measuring includes performing a self diagnostic test on said predetermined components to generate the actual certification data.
12. (Original) The method according to claim 11 wherein,
said performing a Self-Diagnostic Test is performed periodically within a predetermined time interval.
13. (Original) The method according to claim 12, further including:
time stamping the performance of the Self-Diagnostic Test.
14. (Original) The method according to claim 11 wherein,
said performing a Self-Diagnostic Test is performed before each web inspection run.
15. (Previously Presented) The method according to claim 11 wherein,
said predetermined components include vision hardware of the web inspection system.
16. (Previously Presented) The method according to claim 15 wherein,
said vision hardware includes at least one of a cameras, a lens and a light source.

17. (Previously Presented) The method according to claim 16 wherein,
said System Integrity Test Data includes at least one of camera alignment, lens focus
and light source alignment.
18. (Previously Presented) The method according to claim 10 wherein,
said certification data further includes Product Calibration Data corresponding to the
particular web material being inspected, and
said measuring includes determining what inspection set-up parameters were
employed during the web inspection, and that they have not been altered.
19. (Previously Presented) The method according to claim 18 wherein,
said system inspection parameters include a desired level of flaw detection.
20. (Original) The method according to claim 18 further including:
providing said inspection parameters by a customer.
21. (Previously Presented) The method according to claim 10, further including:
time stamping a current measuring of the actual certification data.
22. (Original) The method according to claim 10, wherein
said certifying includes generating a Product Inspection Certificate including the
actual certification data, the predetermined certification data, and the roll map.

23. (Original) The method according to claim 10, wherein
said certifying further includes generating a digital signature with the certification
report.

24. (Previously Presented) The method according to claim 10, further including:
determining a cause of the at least one detected defect.

25. (Original) The method according to claim 24, wherein
said determining the cause includes comparing the measured defect data of the at
least one detected defect with existing defect data of a process-control database.

Claim 26. (Canceled).

27. (Previously Presented) The method according to claim 10 , wherein
said re-inspecting the roll further includes:
determining the location of the at least one detected defect, relative the roll of
web material, through fiduciary indicators placed along the web material;
recording the detection of the at least one detected defect, and its location
relative the roll of web material on a recording medium to create a roll map;
measuring actual certification data of the web inspection system;
comparing the measured actual certification data to the predetermined
certification data for the roll of web material; and
recertifying the accuracy of the second roll map of the inspected web material
when the secondly measured actual certification data is within the predetermined tolerance of
the predetermined certification data.

28. (Original) The method according to claim 27, wherein
said fiduciary indicators are provided by placing fiduciary marks along said roll of
web material.
29. (Original) The method according to claim 28, wherein
said placing fiduciary marks is performed during the first indicated inspection of said
roll of web material.
30. (Original) The method according to claim 29, wherein
said fiduciary marks are placed along an edge of the web material.
31. (Previously Presented) The method according to claim 10, wherein
said re-inspection is performed on the roll of web material in an opposite direction of
the first indicated web inspection.
32. (Previously Presented) The method according to claim 10, further including:
verifying a location of the at least one or more defects by comparing the determined
the location of the at least one detected defect, relative the roll of web material, relative the
fiduciary indicators of the first inspection to the placed along the web material to the
determined the location of the at least one detected defect, relative the roll of web material,
relative the fiduciary indicators during the re-inspection thereof.

33. (Previously Presented) The method according to claim 10, further including:
determining said fiduciary indicators by the detection of the one or more defects
along said roll of web material.
34. (Currently Amended) A web inspection certification system to certify an inspection a
roll of web material through a web inspection system comprising:
- a web inspection system adapted to inspect a roll of web material applying
certification data relating to the web inspection system and the particular web material to
detect at least one or more defects, if any, therein, their type, their location relative the web
material, and their real-time visual image thereof, said inspection system generating an
electronic data representation of the roll map;
- a recording device configured to record the electronic data representation for
subsequent retrieval thereof;
- a diagnostic device adapted to measure or retrieve actual certification data of the web
inspection system applied or to be applied during said web inspection corresponding to the
particular web material being inspected;
- a certifying device adapted to certify the accuracy of the electronic data "object"
representation of a the roll map of the inspected web material when the applied certification
data conforms, within a predetermined tolerance, to standardized certification data for the roll
of web material; and
- a time stamp device to time stamp the occurrence of a Self-Diagnostic Test performed
by the diagnostic device.

35. (Original) The system according to claim 34 wherein,
said applied certification data includes System Integrity Test Data of predetermined
components of the web inspection system.

36. (Previously Presented) The system according to claim 35 wherein,
said predetermined components include vision hardware of the web inspection
system.

37. (Previously Presented) The system according to claim 36 wherein,
said vision hardware includes at least one of a cameras, a lens and a light source.

38. (Previously Presented) The system according to claim 37 wherein,
said System Integrity Test Data includes at least one of camera alignment, lens focus
and light source alignment.

Claim 39. (Canceled).

40. (Original) The system according to claim 35 wherein,
said actual certification data further includes Product Calibration Data corresponding
to the particular web material being inspected to certify which product set-up parameters
were employed during the web inspection, and that they have not been altered.

41. (Previously Presented) The system according to claim 40 wherein,
said system inspection parameters include a desired level of flaw detection.

42. (Previously Presented) The system according to claim 34, wherein
said certifying device is configured to generate a Product Inspection Certificate
including the actual certification data, predetermined certification data, and the roll map.

43. (Original) The system according to claim 42, wherein
said certifying device is further adapted to generate a digital signature with the
Product Inspection Certificate.

44. (Previously Presented) The system according to claim 34, further including:
a defect analysis device configured to determine a cause of a detected defect by
comparing the measured defect data of the at least one detected defect with existing defect
data of a process-control database.

45. (Currently Amended) The system according to claim 34, further including:
a location analysis device configured to determine the location of the at least one
detected defect, relative the roll of web material, through fiduciary indicators placed along
the web material; and
~~a recording device configured to record the detection of the at least one detected
defect, and its location relative the roll of web material create the roll map thereof.~~

46. (Original) The system according to claim 45, wherein
said fiduciary indicators include spaced-apart fiduciary marks placed along said roll
of web material.

47. (Original) The system according to claim 46, wherein
said fiduciary marks are spaced-apart along an edge of the web material.

48. (Original) The system according to claim 45, wherein:
said fiduciary indicators include the detected one or more defects relative their
placement along said roll of web material.

49. (Currently Amended) A method for inspection of a roll of web material through a
web inspection system comprising:

inspecting a roll of web material to determine the number, type and location of one or
more detectable defects along the web material;

outputting an electronic data "object" representation of the roll map, including real-
time visual images of the one or more detectable defects;

storing the electronic data representation to enable subsequent retrieval thereof;

performing a Self-Diagnostic Test on said inspection system to determine the
performance of the web inspection by the inspection system, including:

measuring or retrieving certification data applied during said inspection; and

comparing the applied certification data to standardized certification data to
determine whether the applied certification data was within the predetermined range of
tolerances, said certification data includes System Integrity Test Data relating to the
calibration and operation of predetermined components of the web inspection system, and
Product Calibration Test Data reviewing product set-up parameters applied for the particular
web material inspected; and

certifying the accuracy of the roll map ~~object~~ electronic data representation of the inspected web material to be within a predetermined range of tolerances set for that web material.

50. (Previously Presented) The method according to claim 49 wherein, said performing a self-diagnostic test includes measuring or retrieving certification data applied during said inspection.

51. (Currently Amended) The method according to claim 49 wherein, said certifying includes generating a digital Product Inspection Certificate containing and certifying the ~~object~~ data representation of the roll map.

52. (Currently Amended) A method for certifying an inspection of a roll of web material through a web inspection system comprising:

calibrating the web inspection system to conform to predetermined certification data for the roll of web material to be inspected;

inspecting the roll of a web material for one or more defects, if any, through the web inspection system;

detecting at least one of the one or more defects through the web inspection system, including real-time visual images of the one or more detectable defects;

determining the location of the at least one detected defect, relative the roll of web material, through fiduciary indicators placed along the web material;

recording the detection of the at least one or more detected defects, their real-time visual images thereof, and its their location relative the roll of web material on an electronic recording medium to create an electronic roll map;

measuring actual certification data of the web inspection system, which includes performing a Self-Diagnostic Test on vision hardware of the web inspection system, said actual certification data includes System Integrity Test Data of said vision hardware including at least one of camera alignment of a camera, lens focus of a lens, and light source alignment of a light source;

comparing the actual certification data to the predetermined certification data for the roll of web material; and

certifying the accuracy of the roll map of the inspected web material when the actual certification data is within a predetermined tolerance of the predetermined certification data.

53. (Previously Presented) The method according to claim 52 wherein,
said performing a Self-Diagnostic Test is performed periodically within a
predetermined time interval.

54. (Previously Presented) The method according to claim 52, further including:
time stamping the occurrence of the Self-Diagnostic Test.

55. (Currently Amended) A method for certifying an inspection of a roll of web material through a web inspection system comprising:

calibrating the web inspection system to conform to predetermined certification data for the roll of web material to be inspected;

inspecting the roll of a web material for one or more defects, if any, through the web inspection system;

detecting at least one of the one or more defects through the web inspection system,
including real-time visual images of the one or more detectable defects;

determining the location of the at least one detected defect, relative the roll of web material, through fiduciary indicators placed along the web material;

recording the detection of the at least one detected defect, and its location relative the roll of web material on a recording medium to create a roll map;

recording the detection of the at least one or more detected defects, their real-time visual images thereof, and its their location relative the roll of web material on an electronic recording medium to create an electronic roll map;

measuring actual certification data of the web inspection system and performing a Self-Diagnostic Test on predetermined components of the web inspection system to generate the actual certification data within a predetermined time interval;

time stamping the occurrence of the Self-Diagnostic Test;

comparing the actual certification data to the predetermined certification data for the roll of web material; and

certifying the accuracy of the roll map of the inspected web material when the actual certification data is within a predetermined tolerance of the predetermined certification data.

56. (Previously Presented) The method according to claim 55 wherein,

said certification data includes System Integrity Test Data of at least one of a camera, a lens and a light source of the predetermined components.

57. (Previously Presented) The method according to claim 56 wherein,

said System Integrity Test Data includes at least one of camera alignment, lens focus and light source alignment.

58. (Currently Amended) A web inspection certification system to certify an inspection a roll of web material through a web inspection system comprising:

a web inspection system adapted to inspect a roll of web material applying certification data relating to the web inspection system and the particular web material to detect at least one or more defects, if any, therein, their type, their location relative the web material, and their real-time visual image thereof, said inspection system generating an electronic data representation of the roll map;

a recording device configured to record the electronic data representation for subsequent retrieval thereof;

a diagnostic device adapted to measure or retrieve actual certification data of the web inspection system applied or to be applied during said web inspection corresponding to the particular web material being inspected, said applied certification data includes System Integrity Test Data including at least one of camera alignment of a camera, lens focus of a lens, and light source alignment of a light source of the web inspection system; and

a certifying device adapted to certify the accuracy of the electronic data "object" representation of a the roll map of the inspected web material when the applied certification data conforms, within a predetermined tolerance, to standardized certification data for the roll of web material.

59. (Previously Presented) The system according to claim 58, wherein

said certifying device is configured to generate a Product Inspection Certificate including the actual certification data, predetermined certification data, and the roll map.

60. (Previously Presented) The system according to claim 58, further including

a defect analysis device configured to determine a cause of a detected defect by comparing the measured defect data of the at least one detected defect with existing defect data of a process-control database.

61. (Previously Presented) The system according to claim 58, further including a time stamp device to time stamp the occurrence of a Self-Diagnostic Test performed by the diagnostic device.

62. (Currently Amended) A web inspection certification system to certify an inspection a roll of web material through a web inspection system comprising:

a web inspection system adapted to inspect a roll of web material applying certification data relating to the web inspection system and the particular web material to detect at least one or more defects, if any, therein, their type, their location relative the web material, and their real-time visual image thereof, said inspection system generating an electronic data representation of the roll map;

a recording device configured to record the electronic data representation for subsequent retrieval thereof;

a diagnostic device adapted to measure or retrieve actual certification data of the web inspection system applied or to be applied during said web inspection corresponding to the particular web material being inspected, said applied certification data includes System Integrity Test Data of predetermined components of the web inspection system, and Product Calibration Data corresponding to the particular web material being inspected to certify which product set-up parameters were employed during the web inspection, and that they have not been altered; and

a certifying device adapted to certify the accuracy of the electronic data "object" representation of a the roll map of the inspected web material when the applied certification data conforms, within a predetermined tolerance, to standardized certification data for the roll of web material.

63. (Previously Presented) The system according to claim 62, further including
a defect analysis device configured to determine a cause of a detected defect by comparing the measured defect data of the at least one detected defect with existing defect data of a process-control database.

64. (Previously Presented) The system according to claim 62, further including:
a time stamp device to time stamp the occurrence of a Self-Diagnostic Test performed by the diagnostic device.

65. (Currently Amended) A web inspection certification system to certify an inspection a roll of web material through a web inspection system comprising:
a web inspection system adapted to inspect a roll of web material applying certification data relating to the web inspection system and the particular web material to detect at least one or more defects, if any, therein, their type, and their real-time visual image thereof, said inspection system generating an electronic data representation of the roll map;

a diagnostic device adapted to measure or retrieve actual certification data of the web inspection system applied or to be applied during said web inspection corresponding to the particular web material being inspected;

a certifying device adapted to certify the accuracy of the electronic data "object" representation of a roll map of the inspected web material when the applied certification data

conforms, within a predetermined tolerance, to standardized certification data for the roll of web material;

a location analysis device configured to determine the location of the at least one detected defect, relative the roll of web material, through fiduciary indicators placed along the web material; and

a recording device configured to record the detection of the at least one detected defect, and its location relative the roll of web material create the roll map thereof;

wherein said fiduciary indicators include the detected one or more defects themselves relative their placement along said roll of web material.

66. (Canceled)

67. (Previously Presented) The system according to claim 65, further including:

a time stamp device to time stamp the occurrence of a Self-Diagnostic Test performed by the diagnostic device.

Please add new claim 68 as follows:

68. (New) A method for certifying an inspection of a roll of web material through a web inspection system comprising:

inspecting the roll of a web material for one or more defects, if any, through the web inspection system;

detecting at least one of the one or more defects through the web inspection system;

determining the location of the at least one detected defect, relative the roll of web material, through fiduciary indicators placed along the web material;

recording the detection of the at least one detected defect, and its location relative the roll of web material on a recording medium to create a roll map; and

re-inspecting the roll of web material through the same web inspection system or an independent second web inspection system, in an opposite direction of the first indicated web inspection, to verify the certification by detecting the at least one of the one or more defects, through the web inspection system.